

AMENDMENTS TO CLAIMS

Listing of Claims:

Claims 1-12: Cancelled

Claim 13 (Original): A heat dissipating fin comprising:

a longitudinally-extending base portion,

a first longitudinally-extending approximately circular side, and

a second longitudinally-extending approximately circular side,

wherein thermal energy received in the base portion is dissipated from the outer surfaces of the first and second circular sides.

Claim 14 (Original): The fin according to claim 13, wherein the sides are defined by the

expression $\left(x - \frac{1}{\gamma}\right)^2 + \left(y - \frac{\rho}{\gamma}\right)^2 = \frac{1}{\gamma^2}$, where $\gamma = \frac{h}{k}$ and $\rho = \frac{q_o}{k\theta_o}$.

Claim 15 (Original): The fin according to claim 13, wherein the cross-sectional dimensions of the fin are defined by its base according to the semi-height dimension, y_o , a first arcuate side and a second arcuate side according to radius R, arc length dimension S, and length

L, determined by the expressions $y_o = \frac{\rho}{\gamma}$, $R = \frac{1}{\gamma}$, $S = \frac{\sin^{-1} \rho}{\gamma}$, and $L = \frac{1}{\gamma} \left(1 - \sqrt{1 - \rho^2}\right)$,

wherein $\gamma = \frac{h}{k}$,

and $\rho = \frac{q_o}{k\theta_o}$.

Claim 16 (Original): The fin according to claim 13, wherein the fin is substantially straight over its width dimension.

Claim 17 (Original): The fin according to claim 13, wherein the fin is solid.

Claim 18 (Original): The fin according to claim 13, wherein the fin is homogeneous.

Claim 19 (Original): The fin according to claim 13, wherein the fin is made from a material selected from the group consisting of aluminum, copper, iron, nickel, magnesium, titanium, intermettalic alloys, refractory metals, ceramics, tool alloys, polymers, polymer composites, elastomers, epoxies, semi-conductors, glasses and metallic glasses.

Claim 20 (Original): The fin according to claim 13, wherein the thermal energy received in the base portion and dissipated from the outer surfaces of the first and second circular sides is dissipated to a fluid surrounding the circular sides.

Claims 21-22: Cancelled